



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/763,689

01/26/2004

Alberto Angel Fernandez

10139/12302

3533

76960

7590

09/18/2008

Fay Kaplun & Marcin, LLP
150 Broadway, suite 702
New York, NY 10038

EXAMINER

RAMANA, ANURADHA

ART UNIT

PAPER NUMBER

3733

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/763,689	Applicant(s) FERNANDEZ, ALBERTO ANGEL	
	Examiner Anu Ramana	Art Unit 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 December 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 2, 2008 has been entered.

Claim Objections

Claim 41 is missing from the listing of claims. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 21-22, 24-34, 36-46, and 48-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahners (US 6,955,677).

Dahners discloses a bone fixation system including: a bone plate or fixation device 60; bone engaging members or screws 10 received in apertures A of the fixation device, screws 10 having heads 40 that are at least partially spherical; and apertures A having an hour-glass shape and a lower non-threaded portion 95 wherein a screw head can have any number of threads and any type of design (Figs. 2A-2B, col. 5, lines 4-67 and col. 6, lines 1-12).

Art Unit: 3733

Dahners also discloses isolated non-thread protrusions in the apertures of the bone plate that are configured and dimensioned to have the same pitch and mate with the threads on the bone screw head by being tappable wherein the protrusions can be in the form of pegs, bristles or tines or “spikes” (col. 6, lines 63-67, col. 7 and col. 8, lines 1-43).

Dahners discloses the screw shaft to have a thread design that could be a multi-start design, i.e., double-entry. As noted above, Dahners discloses that the screw head could have any type of thread design.

Although Dahners does not specifically disclose the head to have a multi-start design, such as a double-entry thread, it would have been obvious to a person of ordinary skill in the art at the time the invention was made, to have tried a multi-start design, such as a double entry thread, since there are a finite number of identified, predictable potential solutions and one of ordinary skill in the art could have pursued the known options within his or her technical grasp with a reasonable expectation of success.

Regarding claims 25, 38, and 49, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided a number of protrusions between 2 and 30, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Regarding claims 24, 37, and 48, it is noted that Dahners discloses the density of protrusions to vary from 5% to 65%. For a low density of protrusions, for e.g., 5% to 40%, the opening would have a second area without protrusions, the second area being greater than a first area having protrusions.

Claims 23, 35, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahners (6,955,677) in view of Thramann (US 5,360,448).

Art Unit: 3733

Dahners discloses all elements of the claimed invention except for the pitch of the threads on the screw head being substantially the same as the pitch of the threads on the screw shank.

Thramann teaches providing identical pitch to threads on a screw head and the threads on the screw shank so that the proximal threads track the grooves of the distal thread (col. 10, lines 10-23).

Accordingly it would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the head of the Dahners screw with threads having the same pitch as the threads on its shank, as taught by Thramann so that the proximal threads could track the grooves of the distal threads.

The method steps of claims 23 and 35 are rendered obvious by the above discussion.

Response to Arguments

Applicant's arguments submitted under "REMARKS" in the response filed on May 2, 2008 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anu Ramana whose telephone number is (571) 272-4718. The examiner can normally be reached Monday through Friday between 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eduardo Robert can be reached at (571) 272-4719. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3733

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AR
September 15, 2008

/Anu Ramana/
Primary Examiner, Art Unit 3733